Pre-Hospital Emergency Care Council

03/06/2020

COVID-19 and PHECC practitioner care.

PHECC practitioners are tasked to normal everyday emergency incidents through the 112 system, GP urgent calls, planned ambulance transports and incidents at sport and other events where COVID-19 is not encountered. PHECC practitioners also interact with COVID-19 patients through 112 calls, GP urgent calls, during COVID-19 testing and HSE community assessment hubs.

COVID-19 infects through droplets and contact with the mucous membranes. **It does not infect through the skin**.

The greatest element of risk for PHECC practitioner from COVID-19 is transfer of the virus to their mucous membranes of the eyes, nose or mouth through contact of contaminated hands (including contaminated gloved hands). The key interventions to manage this risk are to minimise hand contamination (keep your hands to yourself when possible), avoid touching your face and clean your hands frequently (with alcohol hand-rub or soap and water).

There is also a significant risk of direct transfer of the virus on to mucous membranes by droplet transmission, that is, by direct impact of larger infectious virus droplets generated from the patient's respiratory tract landing directly in the eyes, nose or mouth of the practitioner. This is most likely to happen if you are within one metre of a patient with COVID-19 infection. This risk is managed by use of appropriate PPE (gloves, facemask, gown and eye protection) and by requesting the patient to wear a surgical facemask and cover their nose and mouth when coughing or sneezing (respiratory hygiene and cough etiquette).

There is evidence that airborne transmission can occur when certain procedures, aerosol generating procedures (AGPs), are performed. AGPs are part of routine emergency care provided by PHECC practitioners therefore a high index of suspicion of COVID-19 must be maintained.

COVID-19 has a low prevalence in the community currently and by far the most common PHECC practitioner interactions will be non-COVID-19 related. However, due to the probability of infection it is necessary to regard all patients encountered as potentially infected with COVID-19.

Using the general principals;

- Complete a preliminary assessment, if possible, while maintaining social distancing (currently > 2 metres).
- The preliminary assessment to involve the screening questions for COVID-19.

Comhairle Chúram Eigeandála Reamhospidéil
Abbey Moat House
Abbey Street
Naas
Co. Kildare W91 NN9V

T: (045) 882042
F: (045) 882089
info@phecc.ie

Screening questions for COVID-19 infection
Do you have any new cough or new shortness of breath?
Do you have a high temperature/ fever?
Have you had contact with a confirmed COVID-19 patient within the past 14 days?

If **yes to any** question regard the patient as suspect COVID-19
If **no to all** questions regard the patient as low risk for COVID-19

Clinical incidents encountered by PHECC practitioners may be divided into two sub groups;

1. **Presentations that require ED care and/or an intervention where COVID-19 is not identified through screening.** Many of these presentations will require direct contact with the patient inside the social distance requirement. Appropriate PPE is therefore required. This includes gloves, fluid resistant apron, surgical facemask and eye protection. Follow appropriate practitioner CPGs after donning PPE.

2. **A COVID-19 suspected presentation**. To minimise droplet infection, patients who are screened as COVID-19 positive should be offered a surgical facemask and requested to don it.
   PPE for PHECC practitioners is mandatory which includes gloves, surgical facemask, fluid repellent long sleeved gown and eye protection. Follow appropriate practitioner CPGs after donning PPE.

Aerosol Generating Procedures (AGPs) – AGPs include tracheal intubation, extubation, positive pressure ventilation (PPV) via BVM and suctioning. AGPs should be avoided where possible. Where an AGP is necessary, this should take place in a well-ventilated area, with appropriate PPE as outlined above. If an AGP is necessary in the ambulance, the vehicle should be stopped temporally to allow the procedure to be carried out safely and efficiently (doors may be opened unless inclement weather increases the risk of turbulent airflow in the patient compartment). Patients requiring PPV during transfer should, where possible, have a closed circuit; i.e. SGA/filter/catheter mount/BVM. This is to minimise the risk of exposure and minimise the number of practitioners required to manage the airway and ventilator support. If an aerosol generating procedure is being performed an FFP2 facemask (or higher specification) must be utilised.

Of note, nebulisation is not considered by the HPSC or WHO[1] as an AGP.

[1] "There is insufficient evidence to classify nebulizer therapy as an aerosol-generating procedure that is associated with transmission of COVID-19". (World Health Organisation, 2020)

Specific clinical presentations/ interventions;

Oxygen – if required, should be administered at the lowest appropriate flow rate, with a surgical facemask over same if patient tolerates this. The use of a nasal cannula oxygen delivery system will minimise aerosol distribution of the virus.

Nebulisation – As with oxygen delivery, nebulisers should be delivered with a surgical facemask over the nebuliser mask if the patient tolerates it.

Cardiac arrest – For cardiac arrest PHECC practitioners should commence resuscitation with the application of defibrillator pads and attempt defibrillation, if indicated, while PPE is being donned by a colleague. In the case of a single practitioner, it is reasonable to apply the AED and deliver a single shock prior to donning PPE but this may not be practical in every situation. Follow CPGs for ongoing resuscitation.

CPR – Compression only CPR should be commenced until an appropriately fitting BVM facemask is available for ventilations. A well-fitting supraglottic airway should be placed as soon as practical. PPV via SGA or BVM facemask should ensure a good seal to minimise droplet risk. The two person BVM facemask process should be utilised when manpower permits. A viral filter (compliant with BS EN ISO23328-1:2008) should be used with BVM via facemask and SGA at all times.

Oropharyngeal Suctioning – should be avoided where possible. Portable suction units entrain and exhale room air, which although not directly from the patient, may contribute to droplet dispersion. This is particularly important in confined spaces (e.g. ambulance with doors closed).

Intubation – should be avoided. A supraglottic airway device is recommended for advanced airway management.

Tracheal Suctioning – should be avoided (unless a closed suction system in which staff have been trained is used (this is not normal EMS equipment).

Tracheostomy Suctioning – should be undertaken only when absolutely necessary, with great care and using a closed suction system wherever possible (again recognising that this is not normal EMS equipment).

CPAP – CPAP is recognised by many as an aerosolising procedure and should be avoided in a confined space (e.g. ambulance compartment).

Respiratory distress – For patients with suspected Covid-19 and tachypnoea ≥ 40 per minute, ALS should be requested. APs should consider a discussion with Medico Cork.

Treat & Refer – the delivery of community testing for COVID-19 represents a significant component of the health service response to this situation. PHECC recognises the importance of the NAS developing pathways for this under their medical directorate. PHECC is supportive of this development in keeping with the philosophy of further developing Treat & Refer CPGs.

Emergency Department Reception – most EDs are implementing COVID-19 pathways for this patient cohort. Practitioners should clarify this with the receiving ED in advance of bringing a patient into the ED. Pre arrival notification of COVID-19 patients requiring resuscitation or early assessment is recommended.

Critical Care Transfers – The inter-hospital transfer of a critically ill COVID-19 patient represents a particular challenge. Wherever possible the NAS specialist retrieval services should be utilised for this purpose. The NAS Critical Care and Retrieval Services are contactable via NEOC.

When the patient encounter is complete, doff and dispose of the PPE appropriately and finally wash your hands.

The advice herein is designed to keep you safe, however, should your Medical Director issue a more detailed/specific level of infection prevention and control please follow it.

Keep safe,

_____

Brian Power
Advanced Paramedic
Programme Development Officer